

Title (en)
Fiber reinforced ceramic composite material

Title (de)
Faserverstärkter Keramik-Werkstoff

Title (fr)
Matériau composite céramique renforcé par des fibres

Publication
EP 1457703 B1 20080730 (DE)

Application
EP 04005204 A 20040304

Priority
DE 10310945 A 20030313

Abstract (en)
[origin: EP1457703A1] A fiber reinforced ceramic material with fibers in the form of gauze short or long fibers, where the short fibers are up to 5 mm long and the long fibers are at least 5.1 mm long, the weight ratio of gauze, short and long fibers is 0-35, 25-80, and 0-45 respectively, and at least some of the fibers have at least one protective carbon layer, obtained by pyrolysis of resins, pitches, boron or phosphorus compounds or their combinations. An independent claim is included for preparation of the material by conversion of the gauze or fibers, selected from thermoplastic synthetic plastics, resins, and pitches, and carbonizable materials to shaped bodies by heating with oxygen emission to 750-1100[deg]C.

IPC 8 full level
C04B 35/571 (2006.01); **C04B 35/573** (2006.01); **C04B 35/80** (2006.01); **C04B 35/83** (2006.01); **F16D 69/02** (2006.01)

CPC (source: EP US)
C04B 35/565 (2013.01 - EP US); **C04B 35/571** (2013.01 - EP US); **C04B 35/573** (2013.01 - EP US); **C04B 35/80** (2013.01 - EP US); **C04B 35/83** (2013.01 - EP US); **F16D 69/023** (2013.01 - EP US); **C04B 2235/3418** (2013.01 - EP US); **C04B 2235/386** (2013.01 - EP US); **C04B 2235/3891** (2013.01 - EP US); **C04B 2235/422** (2013.01 - EP US); **C04B 2235/425** (2013.01 - EP US); **C04B 2235/428** (2013.01 - EP US); **C04B 2235/446** (2013.01 - EP US); **C04B 2235/48** (2013.01 - EP US); **C04B 2235/526** (2013.01 - EP US); **C04B 2235/5264** (2013.01 - EP US); **C04B 2235/5272** (2013.01 - EP US); **C04B 2235/5436** (2013.01 - EP US); **C04B 2235/616** (2013.01 - EP US); **C04B 2235/80** (2013.01 - EP US); **F16D 2200/0047** (2013.01 - EP US); **Y10S 264/904** (2013.01 - EP US); **Y10T 428/213** (2015.01 - EP US); **Y10T 428/249927** (2015.04 - EP US); **Y10T 428/249928** (2015.04 - EP US); **Y10T 428/249957** (2015.04 - EP US); **Y10T 428/2915** (2015.01 - EP US); **Y10T 428/2927** (2015.01 - EP US); **Y10T 428/2962** (2015.01 - EP US)

Cited by
EP1864959A1; EP1874709A4; EP3056756A1; EP1440955A3; US10591010B2; WO2008009261A1; WO2016128186A3

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 1457703 A1 20040915; **EP 1457703 B1 20080730**; DE 10310945 A1 20041007; DE 502004007710 D1 20080911; US 2004204533 A1 20041014; US 6936341 B2 20050830

DOCDB simple family (application)
EP 04005204 A 20040304; DE 10310945 A 20030313; DE 502004007710 T 20040304; US 79931304 A 20040312